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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,293	10/07/2003	Byung-Hoon Oh	1293.1862	4006

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EXAMINER	
BUTLER, DENNIS	
ART UNIT	**PAPER NUMBER**
2115	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/679,293	OH ET AL.	
	Examiner	Art Unit	
	Dennis M. Butler	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-7,13 and 15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-7,13 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. This action is in response to the RCE and amendment filed on November 2, 2006. Claims 1, 3-7, 13 and 15 are pending. Claims 2, 8-12, 14 and 16-23 have been canceled.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 7, 13 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 13, the phrase "so that monitor information is readable by the computer" in the wherein clause is unclear and indefinite as to its relationship to the predetermined signal and powering the monitor on and off. Specifically, it is unclear what condition the phrase applies to, the on condition, the off condition or both the on and off conditions of the predetermined signal. Claims 7 and 15 are rejected because they incorporate the deficiencies of claims 1 and 13.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 3-7, 13 and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use

the invention. The specification fails to disclose how to make and use a computer that can read monitor information from a monitor when the computer is in the powered off state and/ or its power supply is turned off. Claims 1, 3-7, 13 and 15 recite transmitting the predetermined signal to the monitor regardless of whether the monitor is powered on or off so that monitor information is readable by the computer. Claim 3 recites a memory storing the monitor information that provides the monitor information to the computer regardless of whether the monitor is powered on or off. However, both the claims and the specification describe that the predetermined signal indicates whether the computer is powered on or off and that the monitor receives the predetermined signal and is powered on or off according to the predetermined signal. When the predetermined signal indicates that the computer is powered on, the monitor is powered on. When the predetermined signal indicates that the computer is powered off, the monitor is powered off. The specification describes that the only time the monitor is powered off is when the computer is powered off thereby producing a predetermined signal indicating the off state of the computer. See figure 4. Therefore, the specification describes that the computer and monitor are always powered on and off at substantially the same time. The specification is silent as to how the computer can read monitor information when it is in the off state. There is no description in the specification of how to make and use a computer that can read monitor information from a monitor when the computer is in the powered off state. There is no description in the specification of how to make and use a memory in a monitor that is capable of providing stored monitor information to a computer that is in the powered off state. It would require undue

experimentation for one skilled in the art to make such a computer, monitor and monitor memory.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kim et al., U. S. Patent 5,961,647.

A) Kim et al teach the following claimed items:

1. a computer (computer 100) outputting a predetermined signal indicating whether the computer is powered on or off with the signal output from 1st Power Supply 120 to switching circuit 250 in figure 5 and at column 8, lines 39-44 and 51-54;

2. a monitor (display 200) receiving the predetermined signal and powering on and off according to the predetermined signal with figure 5 and at column 8, lines 23-44 and 51-54;

3. a video card processing and transmitting a video signal to the monitor with video card 130, associated connectors and cable 300 of figure 5;

4. outputting the predetermined signal from a predetermined pin of the video card with the power supply control signal pin in cable 300 and the corresponding connector pin in the video card connector, with figure 5, at column 9, lines 17-30 and at column 5, lines 36-40;

5. transmitting the predetermined signal to the monitor whether the monitor is powered on or off at column 8, lines 39-44 and 51-54. The computer supplies a powered on signal level when the computer is powered on and supplies a powered off signal level when the computer is powered off. Regarding the phrase "so that monitor information is readable by the computer" in the wherein clause, the phrase is functional and conclusionary in that it recites desired results without reciting the structure required to perform the desired results. Therefore, the functional limitations are not deemed to have any patentable weight. Claims directed to apparatus must be distinguished from the prior art in terms of

structure rather than function. In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). Apparatus claims cover what a device is, not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ 2d 1525, 1528 (Fed. Cir. 1990). See MPEP 2114. However, even if this phrase were not considered functional, the prior art discloses this feature as described below in connection to the rejection of claim 13.

10. Claims 3-7, 13 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al., U. S. Patent 5,961,647 in view of Chaiken et al., U. S. Patent 6,223,283.

Per claims 3 and 4:

A) Kim et al teach the following claimed items:

1. a control unit comparing a reference level (the threshold voltage level of switching transistor Q1) with a level of the predetermined signal, detecting a state of the computer based on the comparison and outputting a monitor power control signal with MICOM and switching circuit 250 of figure 4 and at column 8, line 23 – column 9, line 16;

2. a power supply unit that is controlled by the control unit to supply or stop the supply of power to the monitor with 2nd Power Supply 240 of figure 4 and at column 8, line 51 – column 9, line 16.

B) The claims differ from Kim et al in that Kim et al fails to explicitly teach the monitor including a memory storing monitor information wherein the information is provided to the computer whether the monitor is powered on or off as claimed.

C) However, Kim describes providing a 5 volt power signal from the computer to the MICOM and switching circuit 250 with figures 4 and 5. Therefore, Kim discloses providing a separate power source to the switching circuit components in the monitor making the switching circuit power independent of the monitor power supply. Chaiken teaches that it is known to provide a monitor with a memory storing monitor information with figure 2 and at column 1, lines 45-59. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a monitor with a memory storing monitor information, as taught by Chaiken, in order to provide the computer and BIOS with monitor information for initializing and configuring the computer. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to power the memory from the 5 volt power signal of Kim in order to provide power to the memory whether the monitor is powered on or off because this would allow the monitor to remain off during computer initialization and configuration thereby reducing the power consumed by the monitor and Kim discloses providing a separate power source to the switching circuit components (MICOMs) in the monitor making the switching circuit power independent of the monitor power supply. Furthermore, it is well known in the art that microcomputers such as MICOM in display 200 typically include read only memory and it would have been obvious to one of ordinary skill in the art to use the MICOMs ROM for storing Chaiken's EDID file. One of ordinary skill in the art would have been motivated to combine Kim and Chaiken because of Chaiken's

description that it is well known that monitors include a ROM for storing EDID files having monitor information and that it is conventional for the BIOS to read/download the EDID file in a monitors ROM during initialization at column 1, lines 45-59.

Per claims 5 and 6:

Kim describes detecting the level of the predetermined signal, supplying power to the monitor when the level is higher than a reference level and cutting off power when the level is lower than the reference level with the threshold voltage level of switching transistor Q1 of figure 4 and at column 8, line 58 – column 9, line 16. Kim describes that the predetermined signal is 5V for powering on and 0V for powering off at column 10, lines 18-53.

Per claim 7:

Kim describes transmitting the predetermined signal to the monitor via a serial cable with the serial cable running from 1st Power Supply 120 to MICOM/switching circuit 250 in figure 5.

Per claim 13:

A) Kim et al teach the following claimed items:

1. receiving a predetermined signal from a computer indicating whether the computer is powered on or off with the signal output from 1st Power Supply 120 to MICOM in figure 4 and at column 8, lines 39-44 and 51-54;

2. powering the monitor on and off according to the predetermined signal with figure 4 and at column 8, lines 23-44 and 51-54;

3. transmitting the predetermined signal to the monitor whether the monitor is powered on or off at column 8, lines 39-44 and 51-54. The computer supplies a powered on signal level when the computer is powered on and supplies a powered off signal level when the computer is powered off.

B) The claims differ from Kim et al in that Kim et al fails to explicitly teach transmitting the predetermined signal to the monitor so that monitor information is readable as claimed.

C) However, Kim describes providing a 5 volt power signal from the computer to the MICOM and switching circuit 250 with figures 4 and 5. Therefore, Kim discloses providing a separate power source to the switching circuit components in the monitor making the switching circuit power independent of the monitor power supply. Chaiken teaches that it is known to provide a monitor with a memory storing monitor information with figure 2 and at column 1, lines 45-59. Chaiken further describes that it is well known that monitors include a ROM for storing EDID files having monitor information and that it is conventional for the BIOS to read/download the EDID file in a monitors ROM during initialization at column 1, lines 45-59. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a monitor with monitor information readable by a computer, as taught by Chaiken, in order to provide the computer and BIOS with monitor information for initializing and configuring the computer. One of ordinary skill in the art would have been motivated to combine Kim and Chaiken because of Chaiken's description that it is well known that

monitors include a ROM for storing EDID files having monitor information and that it is conventional for the BIOS to read/download the EDID file in a monitors ROM during initialization at column 1, lines 45-59.

Per claim 15:

Kim describes transmitting the predetermined signal to the monitor via a serial cable with the serial cable running from 1st Power Supply 120 to MICOM in figure 4. Kim describes detecting the level of the predetermined signal, supplying power to the monitor when the level is higher than a reference level and cutting off power when the level is lower than the reference level with the threshold voltage level of switching transistor Q1 of figure 4 and at column 8, line 58 – column 9, line 16. Kim describes powering off the monitor when the predetermined signal is not received due to the computer being in a DPMS mode or a power off mode at column 8, lines 51-54, at column 9, lines 8-16 and at column 10, lines 47-65.

11. Applicant's arguments filed November 2, 2006 have been fully considered but they are not persuasive. Applicant's arguments have been addressed in the above rejections in paragraphs 3, 5, 9 and 10.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis M. Butler whose telephone number is 571-272-3663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dennis M. Butler

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Art Unit 2115